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June 30, 2011

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Texas Department of State Health Services
P. O. Box 149347, MC 1964
Austin, Texas 78714-9347

RE: San Jacinto River Waste Pits Health Assessment-Public Comment Draft

Dear Dr. Beauchamp:

The Harris County Pollution Control Services Department (HCPCSD) submits the following comments on the San Jacinto River Waste Pits (SJRWP) Health Assessment (HA)-Public Comment Draft on behalf of the Harris County San Jacinto River Pits Technical Team which includes members from Pollution Control Services, Public Infrastructure Department and the Harris County Attorney's Office.

Harris County plays an active role on the SJRWP Community Awareness Committee and we appreciate the opportunity to provide comments. We also appreciate the efforts by the Texas Department of State Health Services (TDSHS) in cooperation with the U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry (ASTDR) to provide a Health Assessment that is both protective of human health and the environment as well as one that builds from an understanding of existing health assessments and toxicological studies.

SECTION-SPECIFIC COMMENTS:

Purpose and Health Issues, Page 13.
The Health Assessment states that TDSHS and ASTDR did not collect or analyze independent sediment, fish, or other samples and that it relied on the following:

> *Instead, DSHS and ATSDR have used sediment sample data previously collected on-site by the Texas Commission on Environmental Quality (TCEQ), fish and crab sample data collected near the SJRWP site by the DSHS Seafood and Aquatic Life Group (SALG), and sediment sample data collected from the San Jacinto River (SJR), Houston Ship Channel (HSC), and Upper Galveston Bay (UGB) by the University of Houston under the Dioxin TMDL Project. HA at Page 13.*

The most recent sample materials referenced in the cited materials appear to be 2008 or prior. There have been additional sampling data available since the above-referenced data were collected and we encourage the TDSHS to consider all sampling data that has been collected to-date by

various agencies and entities and update the Health Assessment as appropriate. It is particularly important to consider post-2008 sampling data due to the potential for the redistribution of sediments by Hurricane Ike and dredging operations in the waterway.

Background, Land and Natural Resource Use, Page 16. This section seeks to provide the reader with a general description of the area of interest in this Health Assessment. The description indicates that the area of interest is "near what is referred to as the Port of Houston" without directional guidance (i.e. east of the Port) or distance from the area of Port activity. A clearer description needs to be provided. The U.S. EPA has also additional sampling data on pits south of I-10 called the Southern Impoundments and those should be referenced in this Health Assessment.

Methods Used in the Public Health Assessment, Pages 17-18. The Health Assessment relied only on certain data collected previously and no independent sediment, fish, or other samples were taken. Also, the Health Assessment did not conduct a residential health "survey" as a means to gather health information from area residents. In previous community meetings, residents have vocalized concerns of negative health impacts including increased cancer risk from living near the SJRWP. The residents have also expressed concerns regarding contact with contaminated water via flooding, recreational use of the river as well as eating contaminated fish and crabs. These other concerns and methods should have been considered especially since the data relied upon is not current and, as previously stated, river sediments may have been redistributed by natural occurrences and dredging operations.

Imputed or Derived HAC Values, Pages 23-24. Great detail is taken to explain how the imputed values are calculated to extrapolate inhalation values to equate to an ingested value. Additionally, calculated values of oral and dermal exposures to 2, 3, 7, 8-TCDD are listed; however, there are no values listed for comparison of possible inhalation exposure and we recommend that those need to be included. Residents along the SJR at the community meeting have also expressed concern that dust from the sediment (possibly at low tide or time of drought) where soil that has been contaminated may blow from the site and possible expose residents and/or fishermen and that needs to be more fully explained. Further comment regarding inhalation exposure from exposed sediments is made on page 3.

Children's Health Considerations, Pages 25-26. The Health Assessment states:

> *In this HA, DSHS has scaled the fish consumption rates for children in proportion to the ¾ power of the body weight of the child with respect to the ¾ power of the body weight of the adult (child consumption rate = adult consumption rate X [child body weight]$^{3/4}$ ÷ [adult body weight]$^{3/4}$). HA, Page 26.*

However, because we know that children eat more food, drink more fluids and breathe more air in proportion to their body weights than do adults, we believe that the Health Assessment should consider the childhood obesity issue and possibly reevaluate the consumption rate for children.

Results and Discussion, Toxicological Evaluation of PCDDs/PCDFs, Page 27. The Health Assessment states:

> *The more highly chlorinated congeners, however, are less volatile, and most will attach to suspended organic particulate matter in the water which gradually settles to the bottom; thus dioxins tend to accumulate in the sediments. HA, Page 27.*

Table 2, page 67, however, indicates that there has not been any data captured in the Surface Impoundment. The Comments and Pathway Status column continues by stating that the PCDDs and PCDFs have very low volatility and are tightly bound to sediment. However, drought and low tide conditions create inviting fishing locations in the riverbed which may expose fishermen to sediment-bound contamination. Wind gusts may also carry sediment bound contaminants to nearby residential properties. We recommend that the Health Assessment consider these issues more fully.

Exposures Sources and Pathways, Toxicological Effects of Exposure, Pages 28-29. The Health Assessment states:

> *It should be noted that none of the preceding adverse health effects have been reported – or are suspected to have actually occurred – in individuals as a result of contact with contaminants that came from the SJRWP Superfund site. HA, Page 29.*

Please provide a reference and basis for the above-referenced sentence.

Exposure Sources and Pathways, Carcinogenity, Page 29. The Health Assessment indicated that some exposures occur as a result of living "near" a hazardous waste site containing dioxin. The Health Assessment states:

> *Cancer health effects that are suspected (but not yet confirmed to be associated with dioxin exposures) include all cancers combined, rectal cancer, pleural cancer, lymphohemopoietic cancer, leukemia, respiratory cancers, prostate cancer, and multiple myeloma (a malignant tumor of plasma cells affecting the bone marrow. HA, Page 29.*

This is where cancer cluster analysis or a questionnaire regarding health disparities can be very helpful. A request for a cancer cluster analysis was made by residents at the last community meeting. Information gained as a result of such an analysis can provide relevant information to the residents and possibly abate concerns.

In addition, the HA provides the following two statements that seem incongruent:

> *The Department of Health and Human Services (DHHS) and the National Toxicology Program (NTP) have determined that 2, 3, 7, 8-TCDD may reasonably be anticipated to cause cancer in humans and thus have listed it as a Class 1 carcinogen (known human carcinogen). HA at 29.*
>
> *The EPA concludes that there is sufficient evidence that 2, 3, 7, 8-TCDD is an animal carcinogen but inadequate evidence that it is a human carcinogen and thus classifies it as a B2 carcinogen. HA at 30.*

The two statements above provide somewhat of a conflict that can leave the reader with a degree of uncertainty. The final Health Assessment should provide a cohesive statement regarding 2, 3, 7, 8-TCDD carcinogenicity and explains the different classifications clearly.

Public Health Implications, Page 31. The HA states that:

> *The assumptions employed in calculating the various risk estimates for this health assessment should be considered to range from "typical" to "very conservative" and should not be construed to represent actual or likely risks for casual visitors to the site. HA at Page 31.*

A definition of "casual visitor" and further risk assessment for this category is recommended so that individuals that may fish in this area have a point of reference on how to gauge concern of possible health impacts from the site. Based on the data from a recent survey conducted as part of the EPA Community Involvement Plan for the site, it appears that of those participants surveyed, the majority (47%) fished 2-3 times per month; another 24% visited the hot spots 1 or more days per week; and of these 88% visited on weekends. Although not clear from the survey, children as evidenced by anecdotal evidence are likely to accompanying the fishermen. As for women, the survey indicated they were accompanying the males that were engaged in fishing activities. It is this type of activity that requires definition of what is considered "casual," and needs to be considered more fully especially because of potential health risks to women and children.

Public Health Action Plan, Actions Planned Item No. 4 Page 41. For actions planned, the HA states that:

> *Follow-up of individuals living in the surrounding neighborhoods was not recommended because the airborne and water-borne routes were not considered significant pathways that may have exposed a larger, geographically circumscribed population. HA at Page 41.*

Based on concerns of the community raised at the April, 2011 community meeting, our recommendations to take into consideration additional sampling data, and the Health Assessment's evaluation that there are unknowns in regards to ambient air and surface water (*see* Table 2, page 67), it is recommended that the Health Assessment consider conducting a follow-up of residents living in the surrounding neighborhoods to make the assessment process as inclusive as possible.

We appreciate your consideration of our comments. If you have any questions, please contact Dr. Latrice Babin by telephone at (713) 274-6413 or by email at Latrice.Babin@pcs.hctx.net.

Sincerely,

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Director
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